

IN THE CLAIMS

Please amend the claims as follows:

1-61. (Cancelled)

62. (Previously presented) A method of manufacturing a semiconductor device, said method comprising:

a first step of forming a substrate having a semiconductor region;

a second step of evaluating an optical property of said semiconductor region;

a third step of performing an etching process with respect to said semiconductor region; and

a fourth step of controlling a condition for said etching process based on an optical property of said semiconductor region evaluated in said second step;

wherein said second step includes the steps of:

supplying measurement light to said semiconductor region;

intermittently supplying exciting light to said semiconductor region; and

calculating a change rate of a reflectance of the measurement light by

dividing a difference between the respective reflectances of the

measurement light in the presence and absence of said exciting light

supplied to said semiconductor region by the reflectance of the

measurement light in the absence of the exciting light;

said method further comprising, prior to said second step, the steps of:

introducing an impurity at a high concentration into said semiconductor region of said substrate and depositing an interlayer insulating film on said semiconductor region; and
selectively removing said interlayer insulating film by plasma etching to form an opening reaching said semiconductor region,

wherein said third step includes performing light dry etching with respect to the semiconductor region exposed at a bottom surface of said opening to remove a damaged layer caused by said plasma etching and predetermining a proper range of the change rate of the reflectance of said measurement light when an electric property of the semiconductor region is proper and

said fourth step includes performing said light dry etching such that said change rate of the reflectance falls within said proper range.

63. (Previously presented) A method of manufacturing a semiconductor device, said method comprising:

a first step of forming a substrate having a semiconductor region;

a second step of evaluating an optical property of said semiconductor region;

a third step of performing an etching process with respect to said semiconductor region; and

a fourth step of controlling a condition for said etching process based on an optical property of said semiconductor region evaluated in said second step;

wherein:

said first step includes forming, as said semiconductor region, a first semiconductor region forming a part of a semiconductor element and a second semiconductor region to be subjected to optical evaluation,

said second step includes evaluating the optical property of said second semiconductor region,

said third step includes performing the etching process with respect to said first and second semiconductor regions simultaneously, and

said fourth step includes controlling the condition for said etching process based on the result of evaluating the optical property of said second semiconductor region.

64. (Original) A method of manufacturing a semiconductor device according to claim 63, wherein said first step includes adjusting an impurity concentration in said second semiconductor region to be higher than an impurity concentration in said first semiconductor region.

65. (Original) A method of manufacturing a semiconductor device according to claim 63, said method further comprising, prior to said second step, the step of

introducing an impurity at a high concentration into said second semiconductor region of said substrate and depositing a gate insulating film and a conductive film for a gate electrode on said first and second semiconductor regions, wherein

said third step includes patterning said conductive film for a gate electrode and said gate insulating film by plasma etching and predetermining a proper range of a change rate of a reflectance of said measurement light when an electric property of the semiconductor region is proper and

said fourth step includes performing said light dry etching such that said change rate of the reflectance falls within said proper range.

66. (Original) A method of manufacturing a semiconductor device according to claim 65, wherein a silicon oxide film is formed as said gate insulting film.

67-145. (Cancelled)